## REMARKS

Claims 1-4 and 6-26 are pending. Claim 5 has been canceled. Claim 26 has been added. No claims have been allowed.

With respect to the Examiner's objection regarding the drawings, Applicants respectfully submit that the term "tailpipe" recited in the claims, *i.e.*, tail pipe 100 discussed in Paragraphs [0029], [0033], [0035]-[0037], [0041], etc., of the present application, for example, is shown in Figs. 3 and 4 of the drawings in communication with second passage 120 and with outlet 90. Applicants have amended the claims to change the single word "tailpipe" to two words "tail pipe" for clarity and to conform to the specification.

The Examiner rejected Claims 1-6, 8-11, 13-20, and 22 under 35 U.S.C. §102(a) as being anticipated by German Reference DE 102 39 132.7 ("DE '132.7") with reference to its U.S. counterpart, U.S. Patent No. 7,032,709 to Hoche et al. ("Hoche et al. '709"), and rejected Claims 7, 12, and 21 under 35 U.S.C. §103(a) as being obvious over DE '132.7 in view of U.S. Patent No. 5,726,397 to Mukai et al. ("Mukai et al. '397").

Applicants respectfully submit that neither DE '132.7 nor Hoche et al. '709 are prior art with respect to the present application. The present application claims priority from U.S. Provisional Application Serial No. 60/463,820, filed on April 18, 2003.

With respect to 35 U.S.C. §102(a), DE '132.7 was published on March 11, 2004 (*See* **Attachment 1**, the English language abstract obtained from the European Patent Office website), after the April 18, 2003 priority filing date of the present application, and Hoche et al. '709 was filed in the United States on August 27, 2003, also after the April 18, 2003 priority filing date of the present application, and was not published until March 4, 2004. With respect to 35 U.S.C. §102(b), neither DE '132.7 nor Hoche et al. '709 were patented or published more than one year prior to the April 18, 2003 priority date of the present application. With respect to 35 U.S.C. §102(e), Hoche et al. '709 was filed in the United States on August 27, 2003, after the April 18, 2003 priority filing date of the present application, and the August 27, 2002 foreign priority date thereof cannot be used for §102(e) prior art purposes. (*See* MPEP §706.02(f)(1)(Example 3)).

The Examiner rejected Claims 1, 6, 9, 10, 15, 17, 20 and 23-25 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,165,798 to Martinez ("Martinez '798").

Martinez '798 discloses a muffler, shown in Fig. 2 thereof, in which exhaust gases enter first stage 1 through inlet 11 and travel through paths ABD and ACD of differing lengths to a common outlet 7 of first stage 1. Similar flows are repeated in second and third stages 2 and 3 before the exhaust gases exit outlet 10 of cover 5. Stages 1, 2, and 3 and cover 5 are formed of stamped metal plates.

With respect to amended independent Claim 1, Martinez '798 fails to disclose a muffler with an exhaust flow path including, in succession, a first expansion volume in fluid communication with an inlet, a first passage in fluid communication with the first expansion volume, a second expansion volume in fluid communication with the first passage, and a second passage in fluid communication with the second expansion volume and with an outlet. Referring to Figs. 3-6 of the present application, for example, the exhaust flow path of muffler 50 includes, in succession, first expansion volume 108, first passage 110, second expansion volume 118, and second passage 120.

By contrast, Applicants submit that the Martinez '798 muffler does not include any expansion volumes therein. The specification of Martinez '798 does not specifically discuss any expansion volumes within the muffler, but rather discusses only various exhaust passages between the inlet and outlet of the muffler which do not appear to include expansion volumes. Applicants respectfully submit that passage G of stage 2, which is cited by the Examiner as an expansion volume, is not an expansion volume as same appears to have the same cross sectional area as outlet 7 and passage D of stage 1 which are in direct fluid communication with path G of stage 2. (*See* col. 3, lines 48-58).

With respect to amended independent Claim 9, Martinez '798 fails to disclose a muffler including first and second passages, at least one expansion volume in fluid communication with the first and second passages (for the reasons explained above), and at least one resonance chamber in fluid communication with the exhaust flow path. Referring to Fig. 6 of the present application, for example, resonance chambers 128 and 130 are in fluid communication with the exhaust flow path of muffler 50.

The Martinez '798 muffler does not appear to include any type of resonance chamber, but rather includes only exhaust flow paths for directing exhaust gases through the muffler.

With respect to amended independent Claim 15, Martinez '798 fails to disclose the combination of an engine and a muffler, the muffler including an exhaust flow path having a first passage in fluid communication with an inlet and disposed substantially within a portion of the muffler housing which is disposed distally from the engine, and a second passage in fluid communication with the first passage and with the outlet and disposed substantially within a portion of the muffler housing which is disposed proximal to the engine. Similarly, with respect to amended independent Claim 23, Martinez '798 fails to disclose a muffler including a first shell with an inlet and a second shell with an outlet, and a pipe extending from the first shell through a partition element and the second shell to the outlet wherein exhaust flows into the muffler through the inlet, through a portion of an exhaust passage in the second shell and then through a portion of an exhaust passage in the first shell before exiting the muffler through the outlet.

Referring to Figs. 1-6 of the present application, for example, first passage 110 of muffler 150 is in fluid communication with inlet 74 and is disposed substantially within a portion 54 of the muffler housing which is disposed distally from engine 20, and second passage 120 is in fluid communication with first passage 110 and with outlet 90 and is disposed substantially within a portion 52 of the muffler housing which is disposed proximal to engine 20. Exhaust flows through inlet 74, through first passage 110, through second passage 120, then through pipe 100 and through outlet 90.

By contrast, as may be seen from Fig. 2 of Martinez '798, the flow of exhaust gases through the Martinez '798 muffler is progressively outwardly from the engine to which the muffler is attached, namely, through inlet 11 and thence outwardly through the various paths within the muffler towards outlet 10.

For the foregoing reasons, Applicants submit that amended independent Claims 1, 9, 15, and 23, as well as the claims depending therefrom, are patentable over Martinez '798.

It is believed that the above represents a complete response to the Official Action and reconsideration is requested. Specifically, Applicants respectfully submit that the application is in condition for allowance and respectfully request allowance thereof.

In the event Applicants have overlooked the need for an additional extension of time, payment of fee, or additional payment of fee, Applicants hereby petition therefore and authorize that any charges be made to Deposit Account No. 02-0385, Baker & Daniels.

Should the Examiner have any further questions regarding any of the foregoing, he is respectfully invited to telephone the undersigned at (260) 424-8000.

Respectfully submitted,

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Attachment 1

CERTIFICATION OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on: July 12, 2006

ADAM F. COX, REG. NO. 46,644
Name of Registered Representative

Signature

June 12, 2006
Date

# Exhaust-gas muffler

**ATTACHMENT 1**

**Patent number:** DE10239132
**Publication date:** 2004-03-11
**Inventor:** HOCHE FLORIAN (DE); KLIMMEK AXEL (DE)
**Applicant:** STIHL MASCHF ANDREAS (DE)
**Classification:**
**- international:** ***F01N1/02; F01N7/18;*** **F01N1/02; F01N7/18;** (IPC1-7): F01N1/02
**- european:** F01N1/02; F01N7/18C; F01N7/18F1
**Application number:** DE20021039132 20020827
**Priority number(s):** DE20021039132 20020827

**Also published as:**
US7032709 (B2)
US2004040783 (A1)
CN1488842 (A)



Abstract not available for DE10239132
Abstract of correspondent: **US2004040783**

An exhaust-gas muffler includes a muffler housing (2) having an inlet opening (3) and an outlet (4). The exhaust-gas muffler is especially for the internal combustion engine in a portable handheld work apparatus. At least one attenuating space (5, 5', 5") is configured in the exhaust-gas muffler (1). The exhaust-gas muffler (1) includes at least one resonance pipe (6) to increase power and to reduce the hydrocarbon emissions. The resonance pipe (6) is fluidly connected to the inlet opening (3) and the resonance pipe leads to a backflow of exhaust gases into the combustion chamber (22). For a simple manufacture, it is provided that the exhaust-gas muffler (1) includes lower and upper half shells (8, 7) via which the resonance pipe (6) is at least partially delimited.